

SURFACE MOUNT OPTOELECTRONIC COMPONENT

ABSTRACT

5 The invention relates to a surface mount optoelectronic component. A thick electrically
conductive material (1) is used to serve as the base for the assembly. An opaque plastic
material (2) is used to provide the housing for the whole component. A cavity (5) on the top
surface is designed within the plastic material. An optoelectronic chip (3) is mounted within
this cavity. This cavity is filled with a hard transparent or translucent resin material so that
10 optical radiation may be transmitted or received via this window. Electrical connection(s)
between the chip and the base material is provided by a metallic wire (4). Subsequent
connections to the external sub-systems such as PCB are provided by the base material itself.
No extra mechanical processes are necessary to create the connections. The base material
extends all the way from the middle to the bottom (8) and to one of the side walls (7); until
15 the extend of protruding outside the package. The bottom surface (8) will be used for
connection when a top illuminator is required. Alternatively, the side surface (7) could be
used for connection if the component is used as a side illuminator.

The Most Illustrative Drawing: Figure 1A